

Lung Cancer Initiatives



The Centers for Disease Control and Prevention (CDC) is working to prevent and control lung cancer by

- Collecting critical data about who is being diagnosed with and dying from lung cancer in the United States.
- Supporting programs in states, tribes, and U.S. territories, which strive to prevent and control tobacco use and promote a healthy diet.
- Implementing public health interventions and countermarketing strategies to reduce smoking.
- Monitoring tobacco use and tobacco control programs, and conducting tobacco product research.
- Supporting a national network of "quitlines" that smokers anywhere in the United States can call for help with quitting smoking.
- Maintaining a lung cancer Web site, www.cdc.gov/cancer/lung/, which provides information about preventing and controlling lung cancer.
- Supporting the Guide to Community Preventive Services, a publication that recommends ways to improve tobacco control in communities.
- Contributing to the Cancer Control PLANET, a Web site that offers research-tested tools and programs for tobacco control.

The Burden of Lung Cancer

More people die from lung cancer than from any other type of cancer. This is true for both males and females. In 2002 (the most recent year for which statistics are available), lung cancer accounted for more deaths than did breast cancer, prostate cancer, and colon cancer combined. In 2002, more than 90,000 men and 67,000 women in the United States died of lung cancer. That same year, more than 100,000 men and 80,000 women were diagnosed with lung cancer (1).*

Aside from nonmelanoma skin cancer, lung cancer is

- The second most common cancer among men in the United States.
- The second most common cancer among white and American Indian/Alaska Native women.
- The third most common cancer among black, Asian/Pacific Islander, and Hispanic women (1).
- * Incidence counts cover approximately 93% of the U.S. population. Death counts cover 100% of the U.S. population. Use caution in comparing incidence and death counts.

Risk Factors

Risk factors for lung cancer include

- Smoking and being around others' smoke (3-5).
- Things around us at home or work, such as radon gas (6, 8).
- Personal traits, such as having a family history of lung cancer (9-12).

The risk of death from lung cancer increases with age and is greater in men than in women (13). Additionally, the risk of developing lung cancer is greater among people who consume fewer fruits and vegetables (4).

Screening

Scientists have studied several types of screening tests for lung cancer. Experts at the U.S. Preventive Services Task Force have reviewed these studies and concluded that more information is needed to determine whether the benefits of screening outweigh the potential harms (17).

Risk Reduction

The most important thing a person can do to prevent lung cancer is to not start smoking, or to quit if he or she currently smokes. Tobacco use is the major cause of lung cancer in the United States. About 90% of lung cancer deaths in men and almost 80% of lung cancer deaths in women in this country are due to smoking.

Quitting smoking will lower one's risk of lung cancer. This is true no matter how old one is or how much he or she smokes. The longer a person goes without smoking, the more his or her risk will diminish compared with those who continue to smoke. However, the risk in people who

have quit is still higher than the risk in people who have never smoked. (2, 4)

Other things a person can do to reduce the risk of developing lung cancer include

- Avoiding secondhand smoke (14, 15).
- Making one's home and workplace safer by testing for radon, and following workplace health and safety guidelines designed to help workers avoid things that can cause cancer (16, 18).
- Eating more fruits and vegetables (4).

Ongoing Work

CDC's ongoing work to encourage the prevention and control of lung cancer includes the following:

• National Program of Cancer Registries CDC's Division of Cancer Prevention and Control (DCPC) collects critical data about who is diagnosed with and dying from lung cancer in the United States. These data inform public health action and are the result of a partnership between the National Program of Cancer Registries (housed in DCPC) and the National Cancer Institute's Surveillance, Epidemiology, and End Results Program. Together, these programs coordinate the collection of incidence data for approximately 93% of the U.S. population and mortality data for 100% of the U.S. population. CDC's National Center for Health Statistics/National Vital Statistics System also provides nationwide cancer death statistics. These data are available online at www.cdc. gov/cancer/npcr/uscs/ and www.cdc.gov/nchs.

Office on Smoking and Health

CDC's Office on Smoking and Health (OSH) works to reduce smoking through public health interventions, countermarketing, policy development, evaluation, research into tobacco products, and monitoring tobacco control programs and tobacco use. OSH also gives technical support and funding to tobacco prevention and control programs in all 50 states, the District of Columbia, 7 U.S. territories, 7 tribal support centers, and 8 national networks. More information about these activities is available at www.cdc.gov/tobacco/.

• 1-800-QUITNOW

CDC and its partner, the National Cancer Institute (NCI), support a national network of "quitlines" that smokers anywhere in the United States can access for help with quitting smoking. 1-800-QUITNOW (1-800-784-8669) is a single-access point to the National Network of Tobacco Cessation Quitlines. Callers are routed automatically to a state-run quitline, if one exists in their area. If there is no state-run quitline, the call goes to the NCI quitline. As part of the Network, CDC provided funding to help 49 states, the District of Columbia, and 5 U.S. territories either enhance their existing quitline or create a quitline.

• Lung Cancer Web Site

CDC maintains a Web site, www.cdc.gov/cancer/lung/, to increase awareness of and knowledge about lung cancer, and to provide resources for preventing and controlling lung cancer. The site presents information about disease burden, risk factors, and risk modification, as well as screening recommendations, a review of CDC's activities in lung cancer control, and links to additional resources. For lung cancer survivors, the site offers definitions and links to information about diagnosis, staging, treatment, supportive care, management of side-effects, clinical trials, and support groups.

• Guide to Community Preventive Services
CDC supports the *Guide to Community Preventive*Services, a publication that recommends ways to improve tobacco control at the community level. The Guide also offers recommendations about other disease-prevention and health-promotion programs, and is available at www.thecommunityguide.org/tobacco/.

Cancer Control PLANET

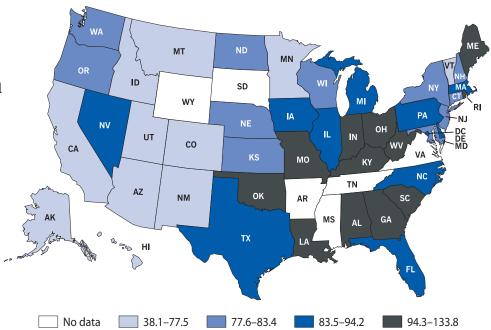
CDC contributes to the Cancer Control PLANET,

http://cancercontrolplanet.cancer.gov, a Web site that offers research-tested tools and programs for tobacco control, as well as many other resources for the prevention and control of cancer.

Division of Nutrition and Physical Activity

CDC's Division of Nutrition and Physical Activity supports states by offering programs that promote a healthy diet. These programs include 5 A Day for Better Health, which encourages people to eat more fruits and vegetables. More information is available at www.cdc.gov/nccdphp/dnpa.

Rates of Developing Lung Cancer Among Men by State*



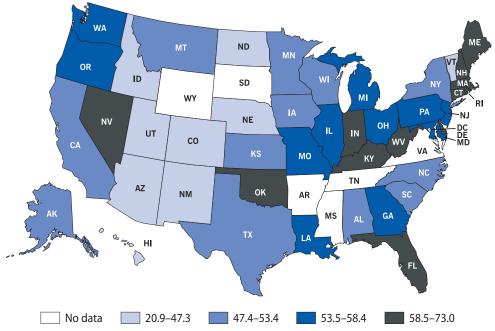
*Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. standard population. Source: *United States Cancer Statistics: 2002 Incidence and Mortality.*

Future Directions

During fiscal year 2006-2007, CDC will continue to support and contribute to the activities listed above, and will maintain its lung cancer Web site, www.cdc.gov/cancer/lung/.

With additional funding, CDC's DCPC would enhance lung cancer surveillance activities, and would evaluate potential research efforts related to 1) lung cancer screening, 2) disparities in health outcomes for different population subgroups, and 3) quality-of-life issues for cancer survivors. Possible areas of investigation in lung cancer screening might include the potential harms of screening (such as false-positive tests and over-diagnosis), and optimal management of screen-detected tumors.

Rates of Developing Lung Cancer Among Women by State*



*Rates are per 100,000 persons and are age-adjusted to the 2000 U.S. standard population. Source: *United States Cancer Statistics: 2002 Incidence and Mortality.*

Contact Information

Centers for Disease Control and Prevention

National Center for Chronic Disease Prevention and Health Promotion Division of Cancer Prevention and Control

> Mail Stop K-64 4770 Buford Highway, NE Atlanta, GA 30341-3717

1 (800) CDC-INFO — Fax (770) 488-4760 CDC-INFO@cdc.gov — www.cdc.gov/cancer

References

- 1. U.S. Department of Health and Human Services. *United States Cancer Statistics*: 1999–2002 *Incidence and Mortality Web-based Report*. Atlanta, GA: Centers for Disease Control and Prevention and National Cancer Institute; 2005. Available at www.cdc.gov/cancer/npcr/uscs/.
- 2. International Agency for Research on Cancer. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. *Tobacco Smoking and Tobacco Smoke*. Volume 83; 2002. Available at http://monographs.iarc.fr/monoeval/allmonos.html.
- 3. U.S. Department of Health and Human Services. Health Consequences of Smoking: A Report of the Surgeon General. 2004. Atlanta: Centers for Disease Control and Prevention. Available at www.cdc.gov/tobacco/sgr/sgr_ 2004/chapters.htm.
- 4. Curry SJ, Byers T, Hewitt M, eds. Fulfilling the Potential of Cancer Prevention and Early Detection. Washington, DC: National Academies Press; 2003.
- 5. U.S. Department of Health and Human Services. *The Health Consequences of Involuntary Smoking: A Report of the Surgeon General.* Rockville, MD: Public Health Service; 1986. Available at www.cdc.gov/tobacco/sgr/sgr_1986/.
- 6. International Agency for Research on Cancer. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. *Overall Evaluations of Carcinogenicity: An Updating of IARC Monographs*. Volumes 1 to 42; 1987. Available at http://monographs.iarc.fr/htdocs/indexes/suppl7index.html.
- 7. U.S. Department of Health and Human Services. 11th Report on Carcinogens. Public Health Service; 2004. Available at http://ntp.niehs.nih.gov/index.cfm?objectid=72016262-BDB7-CEBA-FA60E922B18C2540#toc.
- 8. International Agency for Research on Cancer. IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. *Some Metals and Metallic Compounds: Arsenic and Arsenic Compounds*. Volume 23; 1980.

- 9. Etzel CJ, Amos CI, Spitz MR. Risk for smoking-related cancer among relatives of lung cancer patients. *Cancer Research* 2003;63:8531–8535.
- 10. Brownson RC, Alavanja MCR, Caporaso N, Berger E, Change JC. Family history of cancer and risk of lung cancer in lifetime non-smokers and long-term ex-smokers. *International Journal of Epidemiology* 1997;26:256–263.
- 11. Bromen K, Pohlabeln H, Jahn I, Ahrens W, Jockel KH. Aggregation of lung cancer in families: Results from a population-based case-control study in Germany. *American Journal of Epidemiology* 2000;152:497–505.
- 12. Mayne ST, Buenconsejo J, Janerich DT. Familial cancer history and lung cancer risk in United States nonsmoking men and women. *Cancer Epidemiology Biomarkers & Prevention* 1999;8:1065−1069.
- 13. National Center for Health Statistics. *Mortality Data*, *Multiple Cause-of-Death Public-Use Data Files*. Hyattsville, MD: National Center for Health Statistics; 2005. Available at www.cdc.gov/nchs/products/elec_prods/subject/mortmcd.htm#content.
- 14. Centers for Disease Control and Prevention. *Secondhand Smoke*. Available at www.cdc.gov/tobacco/ets.htm.
- 15. Centers for Disease Control and Prevention. *Taking Action Against Secondhand Smoke: An Online Toolkit*. Available at www.cdc.gov/tobacco/ETS_Toolkit/.
- 16. U.S. Environmental Protection Agency. *Indoor Air Quality: Radon*. Available at http://www.epa.gov/radon/.
- 17. U.S. Preventive Services Task Force. *Lung Cancer Screening: Recommendation Statement*. 2004. Available at www.ahrq.gov/clinic/uspstf/uspslung.htm.
- 18. Centers for Disease Control and Prevention. Hazards and Exposures Online. Available at www.cdc.gov/niosh/topics/hazards.html.

4